

I CLAIM:

1. An inflation seat assembly for connecting an inflatable article to a motor-driven air pump, the air pump having an air inlet port and an air outlet port and being operable so as to draw air via the air inlet port and to supply air via the air outlet port, said inflation seat assembly comprising:

a casing having a base wall, a peripheral wall extending in a transverse direction from a periphery of said base wall, and a skirt flange extending outwardly from said peripheral wall, said base wall and said peripheral wall cooperating to form a receiving space that is adapted to retain the air pump removably therein, said casing being adapted to be extended into the inflatable article and being adapted to be connected sealingly to the inflatable article such that said receiving space is accessible externally of the inflatable article;

an inlet check valve disposed on said base wall, said inlet check valve being adapted to be coupled to the air outlet port of the air pump and permitting air flow from the air outlet port into the inflatable article for inflating the inflatable article;

an air outlet formed in said skirt flange and adapted to be in fluid communication with an interior of the inflatable article; and

a closure member mounted on said air outlet for closing selectively said air outlet.

2. The inflation seat assembly of Claim 1, wherein said casing further has a pair of partition plates, each of which extends from said base wall into said receiving space so as to divide said receiving space into a first section, a second section, and a third section between said first and second sections and adapted to receive the air pump therein, each of said partition plates having a distal edge opposite to said base wall and formed with a notch, said notches of said partition plates being adapted to permit a respective one of the air inlet and air outlet ports of the air pump to extend removably therethrough.

3. The inflation seat assembly of Claim 1, wherein said skirt flange has a projecting section that is formed with said air outlet, said casing further having a reinforcing rib that extends from said projecting section along a periphery of said air outlet and that has opposite ends connected to said peripheral wall of said casing.

4. The inflation seat assembly of Claim 1, wherein said base wall is formed with a mounting hole, said inlet check valve including:

a tubular valve housing having a mounting wall portion coupled to said base wall at said mounting hole, a perforated wall portion extending from said mounting

wall portion, an annular valve seat formed at a juncture of said mounting and perforated wall portions, and a shaft guiding tube connected to and disposed coaxially in said perforated wall portion;

5 a gasket disposed in said perforated wall portion;
a piston having a piston shaft that extends slidably into said shaft guiding tube, and an urging plate formed on one end of said piston shaft and disposed on one side of said gasket opposite to said valve seat; and

10 a biasing member disposed in said shaft guiding tube for biasing said piston to push said gasket to seal said valve seat, thereby preventing the air in the inflatable article from escaping via said inlet check valve.

15 5. The inflation seat assembly of Claim 4, wherein said shaft guiding tube has one end formed with a radial inward spring support flange, said piston shaft having a spring support ring mounted thereon, said biasing member being a coil spring sleeved on said piston shaft and having opposite ends abutting against said spring support
20 flange and said spring support ring, respectively.

6. The inflation seat assembly of Claim 1, wherein said skirt flange is disposed on a plane that is parallel to said base wall of said casing.

25 7. The inflation seat assembly of Claim 1, wherein said air outlet is adapted to be coupled removably to the air inlet port of the air pump.

8. An air inflatable assembly comprising:

an inflatable article formed with an opening;

a motor-driven air pump having an air inlet port and an air outlet port and operable so as to draw air via said air inlet port and to supply air via said air outlet port; and

an inflation seat assembly including

a casing having a base wall, a peripheral wall extending in a transverse direction from a periphery of said base wall, and a skirt flange extending outwardly from said peripheral wall, said base wall and said peripheral wall cooperating to form a receiving space for retaining said air pump removably therein, said casing being extended into said inflatable article via said opening and being connected sealingly to said inflatable article such that said receiving space is accessible externally of said inflatable article,

an inlet check valve disposed on said base wall, said inlet check valve being coupled removably to said air outlet port of said air pump and permitting air flow from said air outlet port into said inflatable article for inflating said inflatable article,

an air outlet formed in said skirt flange and in fluid communication with an interior of said inflatable article, and

a closure member mounted on said air outlet for closing selectively said air outlet.

9. The air inflatable assembly of Claim 8, wherein said casing further has a pair of partition plates, each of which extends from said base wall into said receiving space so as to divide said receiving space into a first section, a second section, and a third section between said first and second sections to receive said air pump therein, each of said partition plates having a distal edge opposite to said base wall and formed with a notch, said notches of said partition plates permitting a respective one of said air inlet and air outlet ports of said air pump to extend removably therethrough.

10. The air inflatable assembly of Claim 8, wherein said skirt flange has a projecting section that is formed with said air outlet, said casing further having a reinforcing rib that extends from said projecting section along a periphery of said air outlet and that has opposite ends connected to said peripheral wall of said casing.

11. The air inflatable assembly of Claim 8, wherein said base wall is formed with a mounting hole, said inlet check valve including:

a tubular valve housing having a mounting wall portion coupled to said base wall at said mounting hole, a perforated wall portion extending from said mounting wall portion, an annular valve seat formed at a juncture of said mounting and perforated wall portions, and a shaft guiding tube connected to and disposed coaxially

in said perforated wall portion;

a gasket disposed in said perforated wall portion;

a piston having a piston shaft that extends slidably into said shaft guiding tube, and an urging plate formed on one end of said piston shaft and disposed on one side of said gasket opposite to said valve seat; and

a biasing member disposed in said shaft guiding tube for biasing said piston to push said gasket to seal said valve seat, thereby preventing the air in said inflatable article from escaping via said inlet check valve.

12. The air inflatable assembly of Claim 11, wherein said shaft guiding tube has one end formed with a radial inward spring support flange, said piston shaft having a spring support ring mounted thereon, said biasing member being a coil spring sleeved on said piston shaft and having opposite ends abutting against said spring support flange and said spring support ring, respectively.

13. The air inflatable assembly of Claim 8, wherein said skirt flange is disposed on a plane that is parallel to said base wall of said casing.

14. The air inflatable assembly of Claim 8, wherein said air outlet is coupled removably to said air inlet port of said air pump.